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measured it. The weights were given me by Mr. Shaefer.

The oil extracted from the liver brought 85 cents a gallon. The amount obtained was not determined as the liver was treated with other material. The rest of the carcass, after all the oil had been extracted, was converted into poultry feed which brought \$70 per ton.

This species of shark is known to the fishermen as the Capidoli, or oil fish.

A few days later (October 4) another specimen of the Basking Shark was brought in to San Francisco by Agostino Bregante. This example was taken off Bolinas Bay near San Francisco, and was 13 feet, 10 inches long. It also went into chicken feed at Schaefer's factory.

While these are not the first examples of the Basking Shark taken on the California coast, the species is of such rare occurrence anywhere that these captures are worthy of record.

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CONCERNING THE GENERIC NAME, *CRISTIVOMER* vs. *SALVELINUS*, FOR THE GREAT LAKES TROUT OR NAMAYCUSH.

The generic name for the lake trout has undergone several changes since Walbaum in 1794 designated the species as *Salmo namaycush*. After the generic name *Salvelinus* for the char had been generally recognized, the lake trout being regarded as a char, was for some time, by American authorities at least, called *Salvelinus namaycush*.

In 1878 Gill and Jordan (a) bestowed upon it the generic name, *Cristivomer*. The character which

(a) Manual of Vertebrates of the Eastern United States, ed. 2, p. 356.

distinguished the genus from *Salvelinus* was stated to be a raised crest behind the head of the vomer and free from its shaft, the crest being armed with teeth.

In 1914 C. Tate Regan, (b) of the British Museum, indicated that *Salvelinus fontinalis* possessed a backward extension of the head of the vomer, and in form and dentition was intermediate between a British char and the lake trout. For this reason he considered it advisable to give up the generic name *Cristivomer*. In the same year, in a paper (c) which was in press at the time Regan's conclusion was published, the present writer had stated a like conclusion based, however, on somewhat different characters of the vomers. He had found that some vomers of *Salvelinus stagnalis* from Labrador and *S. aureolus* from Floods Pond, Maine, could not be distinguished from the typical vomer of the lake trout, thus appearing intermediate between *S. fontinalis* and the lake trout. In the addenda to the same publication, however, attention was called to the discrepancy between Regan's and the present writer's observations, and the suggestion offered that neither char possessing lake trout-like vomers was intermediate between the lake trout and the other, but each independently derived from the ancestral form.

Apparently both Regan and the present writer thought they had discovered something new concerning char vomers, but 26 years prior to our publications F. A. Smitt (d) called attention to a similar situation, citing a specimen from Spitsbergen and one from Greenland which presented vomerine characters similar to *Cristivomer namaycush*. However, Smitt

(b) An. Mag. Nat. Hist., Ser. 8, Vol. 13, p. 405-408, April, 1914.

(c) The Fishes of New England. The salmon family, part 1; the trout or chars. Memoirs Boston Soc. Nat. Hist., Vol. 8, number 1, July, 1914.

(d) Kritisk Förteckning öfver de i Riksmuseum befintliga Salmonider. Kongl. Svensk. Vetenskaps—akademens handlingar, 21, No. 8, Stockholm, 1886, p. 145.

did not recognize even the genus *Salvelinus*. In fact his genus *Salmo* was the same as the sub-family *Salmoninae* of most recent ichthyologists.

Inasmuch as the *Cristivomer* form of vomer is exceptional rather than the rule in the other chars, they may be regarded as vestigial. However, the fact remains that the genera can not always be distinguished by the character of the vomer.

The present writer has long been convinced that the lake trout represents a line of development distinct from the other chars, whether it could be taxonomically recognized or not. A recent examination of the skulls of various species of salmon, trout and chars revealed a character which sharply defines the lake trout from all other salmoninae. This character is in the form of the ethmoid bone (called mesethmoid by Regan). In the lake trout this bone is relatively long and slender; the striae nearly parallel, its width measured between the extremities of the middle vertical diameter of the nasal fossae, in 3 specimens, constituting respectively 20.9, 21.6 and 29.05 per cent of the length of the ethmoid bone. In the specimens of other species examined the ethmoid is relatively short and fan-shaped, the striae radiating toward the orbits to join with the striae of the frontal bones. The width in the same location as in the lake trout constituted the following per cent of their lengths, respectively: *S. fontinalis*, 38.4; 45.45; 54.3; *S. stagnalis*, 42.1 and 48.2 (male) and 48.7 (female); *Salvelinus kundsba*, 60.0, 64.2, 67.7, 79.0. As the character of the vomer distinguishes the lake trout from all other genera than *Salvelinus*, it is unnecessary to present the details of measurements of *Salmo*, *Oncorhynchus*, etc.

The ethmoid character taken in connection with various other lesser differences surely must be regarded as sufficient to reestablish the genus *Cristivomer*. The character of the lake trout ethmoid is associated

with a comparatively narrow interorbital space; the frontal area is flat, and in one instance just in front of the orbits the surface of the skull is shallowly concave. In all other species examined there was no instance of a flat or concave skull as in the lake trout, and in most instances there is a median longitudinal ridge at the junction of the frontal bones, particularly in the larger specimens.

The narrow and relatively long ethmoid gives the contracted or pinched appearance of the snout as noticeable in the lake trout. As a rule the shape of the head and appearance of the snout affords a good recognition character in larger specimens, at least.

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THE TOADS AND FROGS OF MONROE AND WAYNE COUNTIES, N. Y.

1. *Scaphiopus holbrookii holbrookii* (Harlan). Spadefoot. Prof. Chas. Wright Dodge of Univ. of Rochester told me of a record of this species from Wayne county. The material was seen by him and taken by one of the collectors of Ward's Establishment.

2. *Bufo americanus* Holbrook. American Toad. Common. March 25—Oct. 15. Eggs April 10—July 1.

3. *Pseudacris feriarum* (Baird). Swamp Cricket Frog. Peeper. Spring Peeper. Common. March 20—Oct. 1. The "Spring peeper" chorus is more likely to be this form than of *Hyla crucifer*. Eggs laid March 20—April 20. Transformation last of June.

4. *Hyla crucifer* Wied. Peeper. Pickering's Tree Frog. Quite common. March 25—Oct. 15. In this region, often the spring peepers are considered this